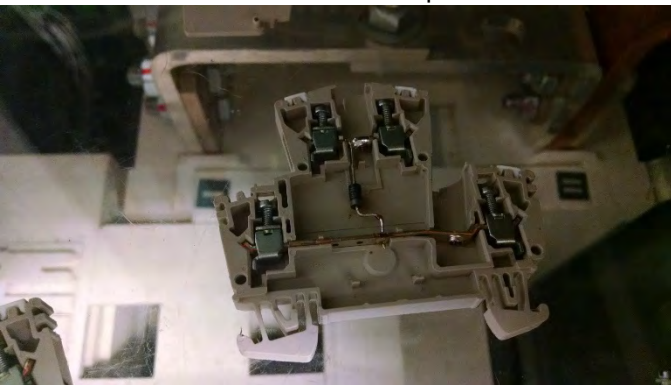


SIO Shipyard Representative Bi-Weekly Progress Report		
<b>Project: AGOR 28</b>	<b>Contract No.: N00014-12-C-0305</b>	<b>Shipyard: Dakota Creek Industries</b>
<b>Prepared by:</b> Paul D. Bueren Scripps Institution of Oceanography (SIO) 297 Rosecrans St. San Diego, CA 98106	<b>Date:</b> 18 June 2016	<b>Program Officer:</b> Robert (Tim) Schnoor Office of Naval Research 875 Randolph St ONR 321 Arlington, VA 22203-1995
<b>Distribution Statement A:</b> Approved for public release; distribution unlimited.		<b>Report No. A002.100</b>

1. Meetings:
  - Attended weekly conference call
2. The following Shipyard Question Submittals reviewed and commented on:

No questions this reporting period

3. Logistics:
  - Continuing to work on initial outfitting lists for Sally Ride.
  - Two full 20-foot IOL shipping containers scheduled for delivery DCI on Monday.
  - Spares Load out scheduled for next week.
4. Operator Concerns:
  - **Pitch Control** – Both pitch control units operate erratically when receiving a 100% pitch command from the pilothouse. The issue has been isolated to the Kongsberg and the PCU follow up potentiometers. When new potentiometers were installed, they were not correctly set up. This is an open Trial Card. I believe Kongsberg is scheduled to retune the system.
  - Blue Drive Shore-based Spares – ALM, AIM and Propulsion Motor drives are critical components with long lead times. The recent failure and repairs highlighted a need for spares.
  - Blue Drive Starboard – 24-volt system failed due to shorted temperature sensor at the Tunnel Thruster motor. A small rectifier was found to have failed in the terminal block found in the Active Front End (AFE). The 1n4007 Rectifier is readily available for 16-cents. Will order additional diodes for spares. Siemens to make repairs.



- Blue Drive – The DC link analog voltage gauges for the starboard side are working intermittently due to a faulty voltage transducer. Siemens has the part, but is waiting on the correct software version to program the voltage transducer. The gauges are redundant and do not affect the operation of the drive. This is an Open Trial Card
- Ballast Tank Coatings – Visual inspections of 50% of the tanks were made on Thursday. Two minor discrepancy noted and scheduled for touch-up by the yard. Overall condition was very good. Recommend ballast exchange once in deep water to remove the silty water.

- **Anchor Windlass** – Design using “ulster” chain guide is progressing. Yesterday's development regarding foreign chain may become a significant issue if not resolve quickly.
- **Steering Hydraulics** –Reports from Armstrong are that the overheating issue is now only a factor when running with a following sea. The adjustments that Kongsberg made seem to have reduced the oil heating issue while in DP. Will continue to monitor.
- **Sanitary Construction Cert** – DCI was not able to obtain the FDA Certificate of Sanitation for Armstrong because the sewage discharge is ahead of the water maker suction.

#### 5. Sally Ride Progress:

- Sonar Self-Noise Sea Trial Completed
- Fire Main Sea Chest Vent – DCI relocate Vent terminus has from the winch room overhead to the main deck.



- ClearFlo Anti-Fouling Anti-Corrosion System – Installation complete and operational.



- Uncontaminated Sea Chest Relocation – Sea Chest and associated piping relocated, inspected and tested. Operational test performed during Sonar Self-Noise. No issues with getting a prime. A check valve and flanges are on order for installation into the suction line. This will be done by crew after delivery.
- Wet Lab Configuration Change – Double watertight door between Wet Lab and Staging Bay is on order. Prep work for installation of the soft-patch between the Wet Lab and working deck is ongoing.
- Pilot Station Bulwark Configuration Change – Yard is building the swinging door.





- Winch Wire – 4 spools of winch wire, the spooler and tensioner have are on site. Spooling to commence on 5 July.



- Delivery Prep – DCI is removing bulkhead and floor coverings.



- **Open Tests**

DD250 #	TP No.	Description	% Complete
	434-001-3	Entertainment Systems Test	95%
	573-003-7	Hydrographic Winches/CTD/SSHD At Sea	0%
	573-005-7	Trawl/Tow/Traction Winch/A-Frame/Winch Monitoring At Sea	0%

- The Entertainment System Test – this will be complete once it is shown that the entertainment system will mute when the PA and General Alarms are activated.
- The Winch Testing is planned for the sometime during the voyage between Ketchikan and San Francisco

- **Open “K” Trial Cards**

DD250 #	Trial Card #	Description
	1111	The muting function on the entertainment system is not working when the PA system is activated.
	1114	Compartment Completion Discrepancies - Locking modular drawers not installed per section 672
	1117	OWS heater causing EMI and depth change on depth sounder when activated. Diagnostics isolated this to P405 circuit 5 (OWS Heater) which may be causing the interference.
	1124	EOT pitch control on the bridge for both port and starboard audio are only working erratically.
	1126	The DC link analog gauges for the starboard side (one located on port drive and one located on starboard drive) are working intermittently.
	1130, 1131, 1132	Exceeded the airborne noise limit of 70dB per J-1 at sustained speed. See Airborne Noise Survey Report (DI-032-006) for more information <b>(Delete after RFW approved)</b>
	1137	HVAC - There were no air filters installed in the unit.
	1183	Airborne Noise - Based upon reference (a), there were 63 spaces that exceed airborne noise acceptance levels for ship compartment and spaces. Focus should be on those spaces at Full Power and at any percentage station-keeping that exceed 84 dBA. <b>(Delete after RFW approved)</b>
	1214	The following required certificates have not been provided: ABS Class Certificates: unrestricted service ABS XA1, Circle E, XAMS, XACCU, NIBS, Ice Class D0 in accordance with ABS Rules for Steel Vessels Under 90 meters (295 feet) in length.
	1215	Certificate of Sanitary Construction not provided.
	1282	During the demo the dial telephones failed to last for a min of 15 mins on UPS per 314c.
	1285	During retest in June 2016 of modified Propellers, the propellers showed cavitation inception at a speed less than required by J-1 Section 245.
	1286	During SSN Trials it was observed that there was a 3% difference between actual pitch vs. pitch settings: Port was 101% and STBD 98%. It appears that the new potentiometers that were installed need adjustment.

- #1111 – Will be closed on completion of Entertainment System Test
- #1117 – Closed
- #1124 – Parts on hand. Should be closed shortly.
- #1126 – Siemens waiting for correct software version
- #1137 – DCI Installing new filters throughout
- #1282 – DCI installed new batteries and power supply. Card Closed.



- Captain Desjardins Observations:

**GOOD**

Sonar Self Noise Trials went well. Forward Draft about 14' aft 14'03". Ballast was moved during the trip but drafts remained essentially the same. It was reported that the onset of cavitation was approx. 2 kts higher than on Armstrong. Will need to wait till the data is fully processed for confirmation.



Not so much activity this past week. Galley Hood wash down system successfully demonstrated, (Trial Card) Electricians off working on Blue North. Oil changed in Main Engines, Set up for Coolant Change in E-Generator. Protective Coverings on decks being removed in preparation for Delivery.



Other than painting Traction Winch Containment Configuration Change has been completed.



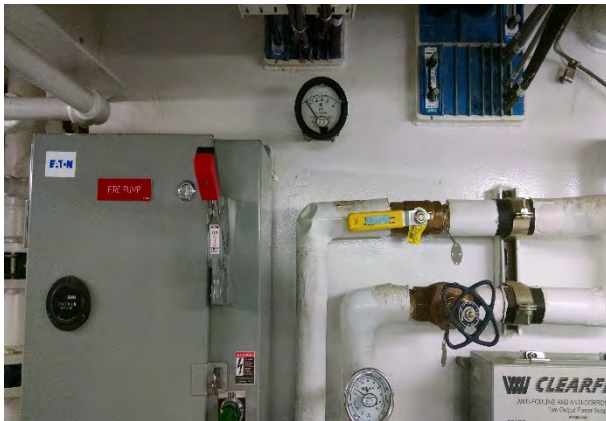
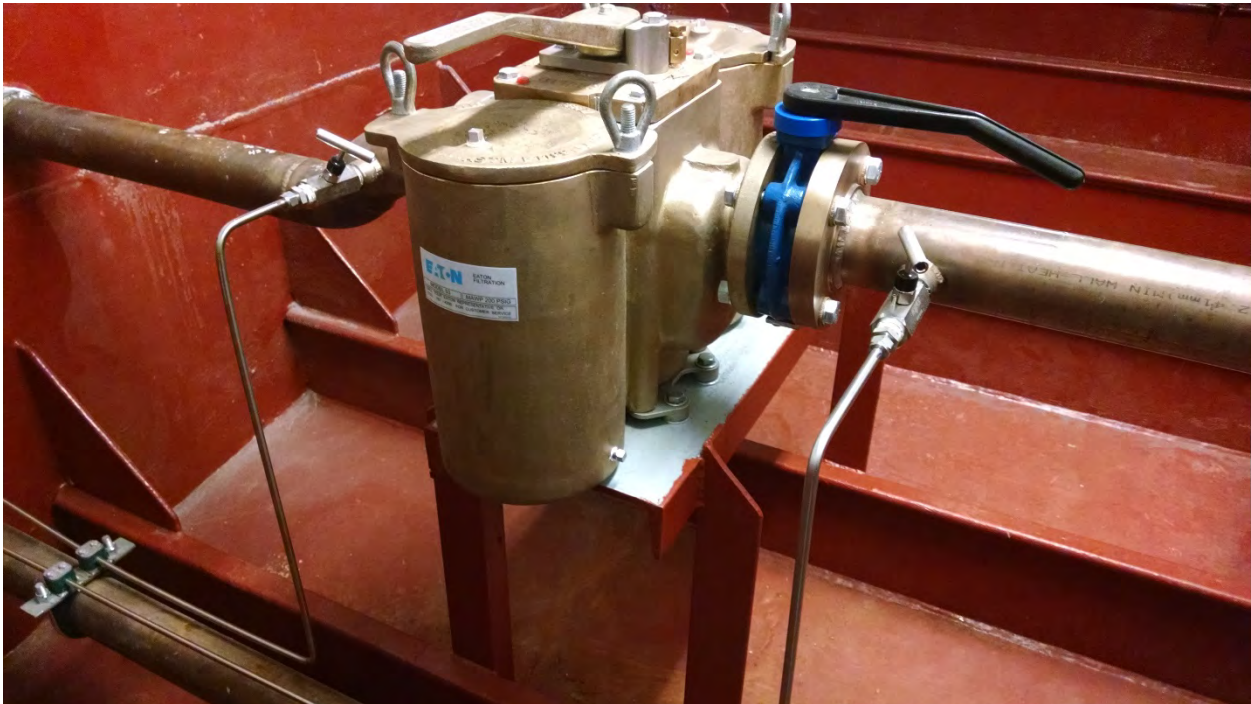


Trim and insulation removed around the wet lab and roller door to staging bay in preparation for soft patch and water tight hatch Configuration Change installation.



Computer racks in place and vibration isolation mts installed. Racks feel very stable.





Duplex strainer installed in the stern thruster space for the strut and stern bearing cooling. Remote differential gauge installed in Machine shop, tubing run well. Paint needed to complete job. Sea Chest vent for Fire Pump extended through the main deck as per Configuration Change paint still needed.

**Not so Good**



Both uncontaminated Sea Water piping taps in the main lab require hangers. Adam says he will install.  
Tom